

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/743,565	WONG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Faye Polyzos	2884	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to submission on 20 January 2006.
2. ☒ The allowed claim(s) is/are 1-48.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

### ***Comment on Submissions***

1. This communication is responsive to submissions 20 January 2006.

### ***Allowable Subject Matter***

2. Claims 1-48 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Regarding independent claim 1, the prior art does not disclose or fairly suggest a method for tuning scintillation detectors, comprising: equalizing an output of a first light with an output of a neighboring, second light in order to equalize outputs of a plurality of light detectors using the equalized output of the first light.

The examiner notes that while it is known in the art of a method to tune a scintillation detector comprising: all photomultiplier tubes to be calibrated efficiently and accurately wherein all light emitting diodes are pulsed simultaneously and the outputs of the photomultiplier tubes are then measured or read. The sum of all the photomultiplier tube outputs is then summed and the sum of all the photomultiplier tube outputs is then compared with an expected value, such as the sum of previously measured outputs of the photomultiplier tubes (see for example *Stark et al -- US 6,342,698 B1--* Fig. 13 and col. 9, lines 15-28 and 55-67), the prior art does not suggest equalizing outputs of a plurality of light detectors using the equalizing output of the first light.

Regarding independent claim 26, the prior art does not disclose or fairly suggest a method for tuning light detectors, comprising: equalizing an output of a second light

with the output of the first light and equalizing outputs of a second plurality of light detectors using the equalized output of a second light.

The examiner notes that while it is known in the art of a method to tune a light detector comprising: all photomultiplier tubes to be calibrated efficiently and accurately wherein all light emitting diodes are pulsed simultaneously and the outputs of the photomultiplier tubes are then measured or read. The sum of all the photomultiplier tube outputs is then summed and the sum of all the photomultiplier tube outputs is then compared with an expected value, such as the sum of previously measured outputs of the photomultiplier tubes (see for example *Stark et al -- US 6,342,698 B1*-- Fig. 13 and col. 9, lines 15-28 and 55-67), the prior art does not suggest equalizing outputs of a first plurality of light detectors using the equalizing output of the first light and equalizing outputs of a second plurality of light detectors using the equalized output of the second light.

Regarding independent claim 45, the prior art does not disclose or fairly suggest an apparatus comprising: a data acquisition computer coupled to the pulser and configured to control the pulser to adjust a pulse width or pulse height of the second light so that its light output is equalized with a light output of the first light.

The examiner notes that while it is known in the art of an apparatus to tune a scintillation detector comprising a pulser to pulse all LEDs simultaneously wherein all photomultiplier tube (PMT) outputs generated from each individual PMT is read and the sum of the outputs of the PMTs is compared with a value that is expected to be if all LEDs and PMTs are functioning properly (see for example *Stark et al -- US 6,342,698*

B1-- Fig. 13 and col. 10, lines 32-65), the prior art does not suggest adjusting a pulse width or pulse height of the second light so that its output is equalized with a light output of the first light.

The remaining claims 2-25, 27-44 and 46-48 are allowable based on their dependency.

**Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Polyzos whose telephone number is 571-272-2447. The examiner can normally be reached on Monday thru Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FP

OTILIA GABOR  
PRIMARY EXAMINER

